Cost and Management

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Mr. McRoberts is Comptroller of the Imperial Tobacco Company of Canada, in Montreal. He is a member of the National Association of Cost Accountants as well as the Society of Industrial and Cost Accountants of Canada. Born in Richmond, Virginia, Mr. McRoberts came to Canada in 1929 and joined a subsidiary company of Imperial Tobacco at that time. He had remained with that organization to the present time, having served in the Accounting Department, Internal Audit Staff, Tax Department and as Assistant Comptroller. He is a past president of the Montreal Chapter of the Institute of Internal Auditors.

Assistant to the Treasurer of Sorensen and Company, Inc., Stamford, Connecticut, Mr. Gannon holds degrees from two universities. He received his B.S. degree in Business Administration from the University of Connecticut and his Master's degree also in Business Administration, from New York University. He is an associate director of the Newsletter for the Greenwich-Stamford Chapter of the National Association of Cost Accountants of the United States.

A graduate of the University of Buffalo in Accounting, Mr. Chapman holds the position of Supervisor of the Internal Auditing Section of the Trico Products Corporation, Buffalo, New York. He has been with the Trico Corporation since his graduation in 1949, having been in the Systems and Procedures, Training, and Cost Accounting Departments. Mr. Chapman is a director of the Buffalo Chapter of the National Association of Cost Accountants, of the United States.

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Our New President . . .

MR. A. E. McDONALD, R.I.A.

Adrian Edward McDonald, R.I.A., of Edmonton, Alberta, was elected president of The Society of Industrial and Cost Accountants of Canada at the Society's 33rd Annual "Cost and Management" Conference, held at Bigwin Inn, Lake of Bays, Ontario.

Mr. McDonald, who is Executive Secretary of the Association of Professional Engineers of Alberta, has been Vice-President of the Society of Industrial and Cost Accountants of Canada for the past year. He is also a member of the Educational Committee.

Joining the Edmonton Chapter of the S.I.C.A. in 1938, Mr. McDonald became a charter member of the Alberta Society and a member of the first Council in 1943. He served on the Council for a total of nine years. As a Past Chairman of the Edmonton Chapter and a Past President of the S.I.C.A. in Alberta, Mr. McDonald has gained a thorough knowledge of the Society's activities on the Chapter and provincial levels.

Mr. McDonald is an affiliate member of the Edmonton branch of the Engineering Instutite of Canada. In 1943 he obtained the degree of Registered Industrial Accountant from the S.I.C.A. of Alberta.

Among his many activities Mr. McDonald is President of the Queen Mary Park Home & School Association, a member of the board of the Keewaythin Boys Camp, a member of the board of McDougall United Church in Edmonton, a member of the Y' Men's Club and on the Y.M.C.A. programme board.

His wide experience in the work of the Society, at chapter, provincial and national levels, will enable Mr. McDonald to carry out the national programmes of the Society and to work with the Provincial and chapter organizations.

Editorial Comment . . .

Scottish Institute Celebrates Centennial

Our congratulations are extended this month to the oldest existing body of Accountants in the world, the Institute of Chartered Accountants of Scotland, which is celebrating its hundredth anniversary. To this honoured and respected organization, which has contributed much to the accounting profession, go our very best wishes.

It is of interest to note that the term "Chartered Accountant" originated with this Scottish group. The first Royal Charter to be granted any group of accountants was given to the Institute of Accountants in Edinburgh in 1854. This was followed soon after by the Institute of Accountants and Actuaries in Glasgow, which received its charter in 1855. These two, working together in the interests of Accountancy, decided to designate all members of the Chartered Institutes as "Chartered Accountants". Strangely enough, the title, now the coveted reward of long and faithful study, did not appeal to the early accountants and the Institute had a difficult time persuading its members to use the letters "C.A." at the end of their names.

In observance of its centennial, the Institute held a three-day conference and celebration in June. Attending were representatives of 48 Accounting organizations, including some 23 different countries. Among them, five Canadian societies were represented. An exhibition of early accounting books and machinery, dating back to the abacus, was set up, and a Centenary Book, containing a history of the Institute was made available to members and guests. A Loyal Address was sent to Her Majesty Queen Elizabeth II.

The organization is known today as the Institute of Chartered Accountants of Scotland, and includes, since 1951, the Aberdeen Institute, as well as those of Edinburgh and Glasgow.

Through insistence on high standards of accountancy, through study and examination programmes, and the long and faithful service rendered the public by its many members, the Institute has made a valued contribution to the profession of Accountancy, and to the business and industry it serves.

The activities of the Institute have been directed toward improving the qualifications of the practising accountant, and to creating a fraternity among members of the profession. Since 1897, it has published a monthly magazine, "The Accountants' Magazine" and since 1893 has maintained an examining Board through which standards of admission to the three Scottish Institutes of Chartered Accountants have been determined and kept at a high level. Education of Accountants has been carried on through classes, correspondence work and examinations.

We of a much younger organization, engaged in many of the processes through which the Scottish Institute must have gone in the Nineteenth Century, recognize, at this time of its centennial celebrations, the great contribution of the Institute. It has made the designation "Chartered Accountant" known and respected throughout the world; it has done much to elevate the profession of accountancy to the position it holds today.

Management . . . A Problem in Communications

Industry, business and the professions are devoting more and more time today to the problem of educating personnel for management, and to its related questions of reporting to management and of communication between staff and management generally.

Recent surveys indicate that the problem is a serious one. In a recent survey, the National Society of Professional Engineers of the United States reported that an estimated 60% of the potential managerial talent of engineers is being lost to industry due to poor communications between the engineers and top management. A study made by the American Management Association revealed much the same thing; too many men of management calibre were being held back by their inability to communicate adequately with those with whom they must work. Other top management men were hindered in the making of important decisions by insufficient or inadequate reports they received from the various levels of administrative responsibility.

A symposium on "What It Takes To Be a Good Manager", held recently by the Chemical Institute of Canada, came to similar conclusions. "The prime requisite for good managers is human understanding—a knowledge of and ability to get along with people. Getting people to work with you is a problem in communications—the more you know about a man, the better you can predict how he will react to what you say and do," one speaker emphasized. "Look to your words—know what you can do with them and what they can do to you."

We see, then, that an increasing awareness of the importance of the ability to express ideas, to communicate effectively, is becoming evident in many circles, both professional and industrial. The problem is of particular significance to the industrial accountant. To quote from the article, "Effective Reporting to Management", by W. E. Jackman, B.S.; (*C. & M., May* '54). "The Controller is not an eloquent speaker, and generally not very aggressive in selling an idea. He has several conferences with the General Manager and finds him rather unresponsive to either charts or comprehensive tabulations of data. He knows that he must make a careful study of available data and must develop a new approach which will result in a striking impression on General Manager. He goes back to his office and coolly outlines a plan of action."

EDITORIAL COMMENT

This little scene is surely acted over countless times in every company. The industrial accountant must realize that management will not take an interest in data presented in the form of charts and long tables of figures. To benefit management in making decisions, the information must be presented effectively, to draw attention to its important points, and clearly, to enable management to absorb it quickly and easily.

It is becoming imperative that good communications be established between management and its employees. All those who expect to progress in industry will have to develop the ability to make clear, accurate reports, both verbal and written, and to communicate ideas readily. To no one is this more important than the accountant. In the study of his profession and its technical terminology, he must not neglect the mastery of the English language, nor the art of clear thinking, if he is to achieve that ready-self-expression which has become a vital attribute of management today.

C & M Round-Up . . .

By N. R. Barfoot, R.I.A.

The Big Inch

These are a few highlights on the West-East gas line starting now. Total length 2,240 miles, 36″ and 30″ line.

Alberta to Winnipeg to be completed 1955. Winnipeg to Ontario, 1957.

Cost of line itself 300 - 350 millions. Gas gathering equipment and treating apparatus an additional 350 millions. Total 700 millions.

Steel pipe, biggest bottleneck, one mill only in U.S. and one each in England and Germany capable of producing 36″ pipe.

Actual construction job is so large that twenty different sections will be worked at one time.

Six and a half million man hours will be required to clear the right of way and install the line. Several times that many will be used to complete the gathering and distributing facilities.

After providing for Alberta's own future, there are enough gas reserves at the moment, to provide a line with 500 million cubic feet per day for the next 33 years.

Reserves of gas are mounting at the rate of 1.5 trillion cubic feet per annum.

U.S. Gas Company are asking for a daily minimum of 100 million cubic feet and as much more as they can get.

United Kingdom Business in Canada

As we all know a great variety of British goods and materials are sold in Canada. The annual volume is approximately 500 millions. The leaders in this are:

Engineering industries. Total sales in 1953, 165 million. This figure is 28% greater than 1952 and has been jumping 20% per year for the past three years. It accounts for 22% of all British imports.

Electrical apparatus is an important segment of this export picture, ranging from household appliances to turbines. Annual sales, 12 million, up 25% over the previous year.

Autos, of course, accounted for most of the increase in Canadian imports from British engineering industries in 1953. Total sales were 33 million, covering some 29,000 units as compared to 22,000 units in 1952.

That Cafeteria Problem Again

Perhaps your in-office feeding may be solved by vending machines. Some advantages are:

Maximum of efficiency with minimum cost.

Service available around the clock.

Kitchen area eliminated.

No cost or maintenance on supplies, such as cutlery, dinnerware, and glassware.

An actual profit can be made. Cost survey on actual installation shows that, on a $1,000 per month sales rate, one can break even.

No problem with sanitation, since everything is pre-packaged or self-contained.

The coffee break routine—now an established feature—can be handled through the vending machine in the cafeteria and thus reduce loss of time going outside.

Vending has become big business. It may pay you to investigate.

Aluminum

The new Kitimat Smelter of Aluminum Company of Canada opens this summer.

A few of the highlights of the business of producing aluminum in the wilderness of British Columbia may be of interest.

Three years and 275 millions were necessary to bring the smelter into operation.

First stage production 91,500 tons, annually. The full potential, possible after 1957, 550,000 tons.

The third largest rock filled dam in the world, turns some 9 lakes in a storage basin, covering 350 square miles. The west wall of the basin was tunnelled for a distance of 10 miles down to the powerhouse.

The water drop is sixteen times that of Niagara Falls.

Power is transmitted 50 miles to the smelter over the largest aluminum and steel cable ever made.

Leisure Unlimited

How much do we spend on fun and games?

A recent survey in the U.S. showed an annual spending of 30 billions, on what may be termed leisure time. In due proportions, the same situation exists in Canada.

The core of the market, about 60%, in spectator and participant athletics, hunting and fishing, gardening, domestic and foreign travel, boating, games, toys, books, magazines and newspapers, etc.

A secondary group is made up of expenditure for alcohol, television, radios, records, musical instruments, and casual eating out.

A short summary shows the percentage by certain categories:

Vacations, week ends, and foreign travel	30%
Alcohol	27%
T.V., Radio	15%
Sporting goods, toys and boats	10%
Reading, gardening	10%
Commercial amusements	8%

Labour Income

Despite some individual monthly recessions, and pessimistic predictions, the comparative 1953-52 figures show:

	Total for year	Monthly Average
1953	11,653 million	971 million
1952	10,743 million	895 million

Construction showed the greatest gain — 12.5% primary industry declined 4%.

The income by industrial division shows:

	1953	1952
Agriculture, forestry, fishing, cropping and mining	906 million	871 million
Manufacturing	3,914 million	3,592 million
Construction	845 million	751 million
Utilities, transportation, storage, and trade	3,016 million	2,613 million
Supplementary income	394 million	366 million

Guaranteed Annual Wage

We will probably hear a lot of this inside the next few years. Here is current thinking on it.

UNIONS: It is not a question of whether we get it, but in what form.

MANAGEMENT:

We cannot offer this security, because we cannot guarantee pay security, any more than guarantee the sale of our products. How can we financially underwrite lay-offs which may outlast our ability to pay?

A completely controlled economy with the Government buying surpluses would be necessary.

One of the serious aspects is that of the privately negotiated G.A.W. and its effect on one firm while others in direct competition go free.

There are, of course, many side issues, social as well as economic. A great group, if guaranteed even 75% of possible earnings, would undoubtedly exercise no effort to find work. The full pay for a year goes beyond sound economics, as well as beyond the point of eliminating the incentive to work.

In actual effect, Unemployment Insurance is a start in this direction. This, plus a few cents an hour set aside and bargained for via wage increases, will be all that will be done in the foreseeable future.

Books in Review . . .

ECONOMIC AND ACCOUNTING CONCEPTS IN BREAK-EVEN ANALYSIS

A review of the article by Lester Ageloff, C.P.A., from the New York Certified Public Accountant, January, 1954.

N. R. Barfoot, R.I.A.

The past two years has seen many accountants, both practising and academic, deliver themselves on the subject of cost-volume economics. The thematic question of the article is, "At what level of output will maximization of profits be achieved?" It is most timely and proposes a logical, if somewhat different approach to profit-volume determination.

The faults of break-even analysis are very well put. As a matter of fact, most accountants believe too much in the traditional break-even point formula. As Mr. Ageloff points out, truly fixed costs do not exist and variable costs can vary with output in constant or changing ratios.

Three basic methods of assembling correct data on cost behaviour are mentioned. A breakdown of costs from the ledger into fixed and variable categories may be used as an analytical approach. This is valid only for a limited period of time and output.

The historic method uses the system of relating cost components to measures of activity from the past. Here again any change in cost of production or methods of manufacture will introduce a factor of error.

The third method is the synthetic one based on engineering studies, to determine what costs should be, under various conditions of volume.

In actual practice, all three are used to get the desired figures.

Mr. Ageloff states quite correctly that cost volume analysis must assume the existence of a minimum cost, at some particular level of production for each product or group of products. Lower unit costs only go to a certain point and at a certain size dis-economies take place. The factors influencing this point are well developed.

Mr. Ageloff made the interesting point that two break-even studies are necessary, one based on total costs and sales and the other on an analysis of costs on a unit cost basis. It is then possible to decide whether the most profitable level of output is at the point where unit costs are lowest. This underlining of the importance of revenue as well as unit cost is one of the more important points of the article.

It will always pay a producer to keep manufacturing goods, even under conditions of increasing costs, as long as he can get as much or more for the last unit produced as the cost to manufacture it.

Mr. Ageloff, in his article, comes to the logical conclusion that given the probable location of maximum profit, management must set its plans accordingly. This field of action is, of course, the sales and expense budgets.

INTRODUCTION TO BUSINESS FINANCE

By Bion B. Howard and Miller Upton, McGraw-Hill Book Company, New York 1953, *pp.* 565, $6.00.

Reviewed by Dr. Michael Albery, Boston College

The authors have chosen a rather modest title for a book on financial management. They stress in the preface that the subject is being approached from the administrative point of view, that they do not intend to teach corporation finance, but principles which apply to any type of business enterprise. This is certainly a very sound approach and the authors carry out their intention to a successful end.

In the introductory Part I, entitled Financial Organization, they describe the scope of business finance, the meaning of financial risk, the apportionment of the elements of risk, income and control and its bearing on the supply of funds. Part II is devoted to Financial Analysis as an administrative tool, Part III to Budgets and Planning, Part IV to short-term financing, Part V to intermediate and long-term financing and Part VI to nonrecurring financial problems, such as valuation, form of sale, remedial action for financial strain or failure.

Bion B. Howard is Professor of Finance at Northwestern University and Millar Upton is Dean and Professor of Finance at Washington University. They spent eight years on this work and they deserve our sincere congratulations for their achievement. The book is clearly written, the topics are presented in proper sequence, the whole area is uniformly covered: the language is direct, easily read and understood.

A deviation from the classical treatment of courses in finance was overdue. Most of the books on finance concentrate exhaustively on the raising of funds — with the emphasis on bonds. This being a book on management, the author's approach to "the tools of management" is of special interest. About two hundred pages are devoted to the administrative tools of finance, with emphasis on the analytical treatment of statements.

It certainly deserves to be pointed out that "no periodic accounting can be defined as absolutely true" (p. 93). Besides inventory valuation problems and the lapse of of time between publishing of statements and the time an analysis is being made, it should be kept in mind that each figure is still expressed in dollars, but they are "in fact different dollars from those with which the public is generally familiar — they are purchasing power dollars and not ordinary dollars" (p. 94). The purchasing power of the dollar fluctuates and therefore "under no conditions can any system of accounting be devised that can avoid the use of judgment and interpretation" (p. 95).

COST ACCOUNTING FOR SMALL MANUFACTURERS

By R. Lee Brummet, School of Business Administration, University of Michigan, for "Small Business Administration", Washington, D.C., November 1953, pp. 88.

Reviewed by L. W. Bennett, C.P.A., R.I.A.

The purpose of this booklet is to provide: (1) A guide for the establishment of suitable cost accounting procedures for a small industrial firm which is being newly organized; (2) a reference for those charged with the responsibility of maintaining adequate cost records for a small company and who are not fully satisfied with the results of their system; (3) suggestions which may induce small manufacturers to revise or add certain accounting techniques to increase the overall effectiveness of their cost accounting system.

Contents —

The Fundamentals of a Cost System for a Jobbing Plant.
The Fundamentals of a Process Cost Accounting System.
Accounting for Raw Materials and Purchased Parts.
Accounting for Labour Costs.
Accounting for Overhead Costs.
Use of Cost Estimates or Standards.
Budgeting and Profit Planning.

Although it would be unreasonable to expect a booklet of 88 pages to cover the whole of this extensive field, fundamental principles are sufficiently discussed and illustrated to emphasize the importance of determining and recording costs accurately and to encourage and assist small-plant executives and accountants to use this essential tool of good business management.

This and other booklets in the Small Business Management Series can be secured from — Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.

Cost Accounting for Small Manufacturers, 35 cents.
An Employee Suggestion System for the Small Plant, 15 cents.
Cutting Office Costs in Small Plants, 25 cents.
Better Communications in Small Business, 20 cents.

BURROUGHS' INCOME TAX SERVICE (CANADA)

2 Volumes. Written and compiled by Carl H. Morawetz, LL.B., LL.M., D.Jur., (Toronto) and Lawrence F. Heyding, C.A. Distributed by Burroughs & Company (Eastern) Limited, 145 Adelaide Street West, Toronto. Price — $50 on installation and $10 half yearly for servicing.

Reviewed by George Moller, R.I.A.

Taxation is like a rainbow — innumerable variations of colours — sometimes looking clear and almost easy to grasp and sometimes disappearing in the haze — ever-changing and never really in reaching distance.

Canadian taxation is developing fast into maturity. Only five years ago, an examination of the available sources of reference in income tax matters was relatively easy to write (1). At that time, we had not much more than the two tax services (DeBoo and C.C.H.) and Gilmour's Income Tax Handbook, plus two annual guides for the preparation of income tax returns, mostly written for the layman. Since that time, two standard textbooks ("Taxation in Canada" by Perry and "The Taxation of Corporate Income in Canada" by Petrie) have provided the student of Canadian taxation with fundamental outlines of the field. Special works like LaBrie's "The Meaning of Income in the Law of Income Tax" or Morawetz' "Taxation of Compensatory Payments" have probed into specific fields and added thus t othe sources of information on Canadian tax problems. The 1950 Special Lectures of the Law Society of Upper Canada featuring "Corporation Taxation" by Heward Stikeman cannot be omitted in this enumeration.

The Tax Review (supplement to the Canadian Chartered Accountant) and, more recently, the Canadian Tax Journal, a publication of the Canadian Tax Foundation, are providing a regular forum for the discussion of problems and decisions on a current level. The available sources of information have therefore broadened considerably and taxation has become more and more a specialist's preoccupation.

I was delighted to find that the new Burroughs Income Tax Service has arranged the material in the main volume in accordance with the subjects which are listed in alphabetical sequence and shown in the front of the volume for easy reference.

The preface to the volume says "the reader may find all that he wants to know about one subject, dealt with in one place, without the burden of constantly turning from one section to another." This statement seems to be the key to the particular value provided by the new Service. Although the second volume of the Service brings the full text of the Income Tax Act, Regulations, Forms and Conventions with a general index referring to sections of the Act and Regulations and to pages of the Service, this part is only considered a supplement to the main presentation in the first volume. The subject matter presentation may be appealing particularly to the layman and non-specialistt. The combination of the Service with the appendices should satisfy even the most demanding lawyer or accountant specialist.

The new Service copes with the difficulty of the ever-changing tax law, practice and decisions, by the issue of a special supplement which consists, at this time, of the amendments to the Income Tax Act passed at the most recent session of the Legislature. There is also the cumulative supplement to the Tax Service referring to the corresponding pages in the main work. The authors instruct the reader to consult the

1George Moller, "The Approach to Tax Problems", The Canadian Chartered Accountant, January 1949.

main work first and then refer to the cumulative supplement. In each new edition of the cumulative supplement, new material is denoted by black lines. It may be assumed that the material accumulated in the cumulative supplement will be transferred into the main volume by re-writing the affected parts of the main volume which, for this purpose, is presented in a very handy open binder, i.e., in loose-leaf form.

If we agree that competition is the life blood of the free enterprise system, then a third income tax service in Canada should be welcomed as a healthy stimulant to further improvement in the very important field of information on income tax matters.

The two authors responsible for this very comprehensive work, the main volume of which comprises several thousand very clearly printed and extremely legible pages, should be congratulated on their fruitful co-operation of lawyer and accountant which, it may be hoped, will result in a reliable and, what is most important, prompt information of the subscribers of all developments within the scope of the new Service.

PERSONALS

L. J. Burke, R.I.A., has recently been appointed General Manager of the Halifax-Dartmouth Bridge Commission. Mr. Burke, a member of the Halifax Chapter, was formerly with Egan, Burke & Company, Halifax.

Roland J. Ladouceur, M.Comm., R.I.A., has been appointed Cost Accountant for the National Film Board of Canada, in Ottawa. A member of the Ottawa Chapter, Mr. Ladouceur was employed by Consolidated Paper Corporation and Canadian Industries Limited, before joining the Film Board about a year ago.

M. P. McBain, R.I.A., has been promoted to Secretary-Treasurer of Kelloggs of Canada, Limited, London, Ontario. A member of the London Chapter, Mr. McBain was formerly Controller.

R. G. Nelles, R.I.A., and *D. D. Hickson*, both members of the Windsor Chapter, were presented with their Certified General Accountant certificates at the annual general meeting of the Toronto branch of the General Accountants' Association recently. Mr. Nelles is employed in the H. J. Heinz Company, Leamington, Ont., and Mr. Hickson is with the John Wyeth and Bros. (Canada) Limited, in Walkerville, Ontario.

Reports for Management . . .

By G. W. McRoberts
Comptroller,
Imperial Tobacco Company of Canada Ltd., Montreal

Is management getting the most possible information in the clearest possible manner from the reports it receives? This author thinks not, and feels that it is the accounting department's responsibility to find a solution to the problem. In this article he outlines a procedure which could be followed in investigating and clarifying the whole question of reports.

"REPORTS for Management" is a problem which needs attention in all large companies, and it is one which probably requires more attention by the accounting department than any other subject.

From management's side come such statements as 'There are too many reports', 'I don't get enough information', and 'I have never seen that report before'. A very common utterance is that 'information on this report is received too late to be of any value to me'.

In the accounting department there are similar protests—'There are too many reports', 'I have to get too many details for this report', 'No one ever looks at this report'. Quite often someone complains in despair: "This report means absolutely nothing, I don't know why we keep preparing it." Obviously, in a company where such conditions exist, good operations are affected. Management loses confidence in the accounting department, and the accounting department's respect for the management is lessened.

There is no standard reporting system to suit all companies. Each company must have its own. The factors to be considered differ in practically all large companies. Some of them are: (1) the nature of the business; (2) the organization of the company; (3) management, who receives the reports, and, (4) the individuals who prepare them.

In many cases management does not know what reports it should be receiving, and it is also a fact that certain persons of management level often do not know which reports they should *not* be receiving. It is the accounting department's responsibility to straighten this matter out; therefore, the content of this paper will be directed primarily to the accounting department, for the purpose of showing how the straightening out might be done.

First, forget all about the reports which are currently being prepared; then examine why reports are needed at all. A general answer to this question is that reports are required to keep management informed. Since management is responsible for the proper conduct of the business, it cannot do its job properly unless certain information is forthcoming. Management must be informed to take the right course of action or to know that present policies should be maintained. Cer-

tainly, management does not need, nor should it get, a lot of information in order to become a walking encyclopaedia. There are cases where executives spend a considerable amount of their time reading reports in order to answer a question from their superiors, which question may never be asked. Such executives do not understand why reports are being made, and in such cases the accounting department is not performing its function of furnishing information that will induce the reader to take the right type of action.

After the question of why reports are prepared has been clearly reasoned out, the next step is to examine each operation in the company to determine the reports which are necessary. This is a gigantic undertaking; but it is a very sensible way to tackle the problem in a large company which has been in business for a number of years and wishes to remain in business.

Discuss New Reports with Management

After determining what is required, reports covering each operation should be drafted and submitted to each level of management. Keep in mind, at this point, that the details to be reported should be reduced as the report goes to a higher level of management. This is a matter which is too often overlooked and the highest executive officer is found to be getting all the details concerning an operation, while he is unaware of the action which has been taken down the line.

Naturally, in order to discuss new drafts of the reports with management, it is necessary to know what level of management is to receive them. In going through this it will be apparent that there are some operations, for which the responsibility has not been properly established. To correct this would be, of course, a by-product of improving reports to management.

As these reports are discussed, it should be made certain that each level of management understands the *purpose* of the report. In fact, every report should have its purpose printed thereon. It is not unusual to find that both management and the department preparing it have forgotten the intended purpose of the report, and everyone concerned is wasting his time.

Timing and Frequency

Timing is also a matter which should be discussed with the management. Certainly, the shorter period between the deed and the report, the more receptive the treatment of the report, will be. It would seem that the time for submitting a report should not be determined on a calendar basis but rather on the number of days following the close of the period. Once the date on which the report is to be submitted is agreed upon, every effort should be made to live up to this schedule. When conditions are such that it cannot be done, management should be informed, giving the reasons why.

Coupled with timing, *frequency* of reports should also be considered. The nature of the report and the action which may be taken in connection with it has a bearing on how often a report should be prepared.

Another matter which should receive consideration, when discussing this matter with management, is the *accuracy* which is required in the report. This is an item which has been receiving more attention in recent times than in years gone by. Many accountants were trained at a time when accuracy was probably the most important matter in their training.

Today we are beginning to realize that a hundred percent accuracy is seldom necessary to arrive at a decision. It is most aggravating to find accountants who will arbitrarily determine a basis for splitting expenses which conceivably could throw out an account by quite a sizeable sum, then turn around and work for hours to find an error of a very small amount of money.

Another important consideration is the *method of presentation.* To be of maximum use, reports should present a yardstick against which current results can be measured.

Predetermined Standards

Since one of the primary purposes of reports is control, it follows that the first requisite of the reporting system is the existence of predetermined standards for all areas of operation. If standards are not used, there should be some other basis of comparison—last year, last month, or whatever adequately suits the circumstances.

Should dollars only be shown—or only statistics, or a combination of both? Would a chart be preferable? The number of copies of the report which are required should be settled; also, who is to receive the report. If multiple copies are required, how are they to be reproduced? Will longhand be acceptable, or should they be prepared on typewriter, tabulating machine, or some other duplicating method? These are all points which should be considered in determining the method of presentation.

A factor which could receive attention at this time, but seldom does, is the *period of time the reports should be retained.* In many cases the duration is determined for one of the copies, but there may be several other copies around in the organization for which no duration has been established.

Is *security* a problem? In the past several years, firms in the United States have been considering the possible loss of records by acts of war; and a few large companies have taken some unique steps in developing ways and means of storing their records for security purposes.

Interpretation and summarization should be mentioned. Today, more than ever before, executives are hard pressed to find time to

perform the many functions which fall on their shoulders, and welcome any suggestions which will help them to be more effective. They do not have time to study long and detailed reports to discover the points requiring their attention. One of the most important functions of an accounting department is the interpretation of reports. If a report requires the time of management for interpretation and research, the facts are not properly presented. Time can be saved for all concerned if reports are interpreted and summarized. Some companies have found that, in addition to interpreting, it is beneficial if an oral presentation of reports is made. This seems to have a lot of merit, but it should be discussed between the individuals concerned.

Preparation and Presentation by Accounting Department

After all of these matters have been settled with management, the accounting department then should consider the means at its disposal for the preparation of the report and presentation. Here the principles of work simplification come into play. Where should it be done? Who should do it? How should it be done?, and so on.

In answer to these questions, it will be sufficient to say that here is a great field for saving effort and money; a thing which should receive continuing attention. A word of caution, however; don't get so enthused about the where, who and how, that the purpose of the report itself is forgotten.

Now, after the where, who and how have been determined, calculate the *cost* of preparing the statement. Accountants are sometimes the worst in the world when it comes to accounting for their own operations. Surely a good accountant would insist upon knowing the cost of factory production, and it is difficult to discern any difference between reports and factory production. Reports are, in fact, a large part of office production. The accountant should know the cost of making a report because if it is high he might be induced to find a more economical way of preparing it. It is also conceivable that if the costs were known to the receiver, the report might be discontinued. Every report should stand the test of comparison between cost of producing it and the value to be obtained from it, or the loss to the company if it is not available. The calculation of this cost can probably be done satisfactorily by computing man hours required by everyone concerned and converting this into dollars at an average rate.

What Follows the Accounting Department's Job?

What is the next step? The next thing to do is to start all over again and repeat the procedure, because by the time the procedure is completed the first time, conditions will have changed to such an extent that it would be well to adopt the same attitude that inefficiency exists and another good look at the operations is necessary. Do so with a very

open mind, and use the approach that "what you have can still be improved." This second operation is more difficult than the first, because in this instance you will probably be examining a child of your own making, and it is more difficult to keep an open mind about your own children than it is about someone else's.

Finally, always bear in mind that reports can be of great benefit to management—they can also be a great burden; for reports, once started, have a habit of perpetuating themselves unless re-examined periodically in the light of their current usefulness.

For Further Reading

ECONOMIC FACTS FOR EXECUTIVES — WHAT TODAY'S MANAGEMENT DOES AND THINKS ABOUT REPORTS — MODERN INDUSTRY, Dec. '52.

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REPORT TO TOP MANAGEMENT — American Management Association Series.
BUILDING AN INTEGRATED REPORTS SYSTEM — G. E. Altmansberger
OBTAINING PROPER DISSEMINATION OF REPORTS — F. F. Hoyt
MOTIVATING EXECUTIVE ACTION THROUGH REPORTS — J. F. Lillis

REPORTS THROUGH THE EYES OF MANAGEMENT — W. E. Lewis, N.A.C.A. Bulletin, June '52, Sec. 1.

TECHNIQUES FOR EFFECTIVE REPORTING TO MANAGEMENT — E. A. Carlson, N.A.C.A. Bulletin, Feb. '52, Sec. 1.

OBITUARY

FRANK N. WARE, R.I.A.

It is with deepest regret that we announce the death of Frank N. Ware, R.I.A., Life Member of the London Chapter. Mr. Ware, who was with the Murray Selby Shoe Company in London, died in Victoria Hospital on Monday, May 24th.

Mr. Ware, a Charter Member, contributed greatly to the activity and growth of the London Chapter, both in its formative years and in recent times. In recognition of his long and devoted service to the Society, the London Chapter presented him with a Life Membership last February.

He will be greatly missed, both by the London Chapter and by the Society.

Accounting for Sales . . .

By HAROLD E. GANNON, JR., B.S., M.B.A.
Assistant to the Treasurer,
Sorensen & Company Inc., Stamford, Conn.

The accountant must consider most sympathetically the selling side of the business, for without sales there can be no business. It is up to the accountant, this author states, to set up and maintain sharp tools for measuring sales performance, and prove to the sales manager that records are concrete, useful tools, not guess sheets and post-mortems. In this article he describes a system of accounting for salesmen's commission which is a considerable departure from the usual commission journals, as a means of saving time, effort and expense.

A NECESSARY prerequisite of an accounting system for salesmen's commissions is a sound plan upon which compensation is based. It is impossible to get very far into the question of the accountant's relationship and contribution to such a plan without first looking broadly at his position in relation to the sales field. Fundamentally, the accountant and the sales manager have never learned to talk each other's language. Sales personnel think in terms of people rather than mathematical analysis. Accountants, on the other hand, are inclined towards arithmetic measurement of all things. Both points of view have real merit and are essential to good business results.

In presenting his figures, the accountant should remember that arbitrary allocations, no matter how scientifically undertaken, sometimes produce unpredictably fantastic results. Interpreted literally, they may lead to unsound conclusions. The accountant should emphasize the *appropriateness* of his figures as well as their accuracy. To do this he must consciously recognize at all times the limitations of the bookkeeping approach to management problems. He must think of financial controls as making use of, but not being dominated by, accepted accounting principles. No matter how accurate his figures may be, they will be subject to many possible interpretations and it is the accountant's duty to guide the sales manager towards the proper interpretation.

The results of cooperation and understanding between the accountant and the sales manager will yield unlooked-for gains in profit. With this cooperation and understanding, the accountant can do a great deal to help the sales manager improve his performance.

Development of a Sales Compensation Plan

The effectiveness of a Sales compensation plan depends to a great extent on the method of approach used in its development. While there is no formula that will automatically turn out a good plan, there are proven methods of approach that are useful as guides. A thorough consideration of the objectives which the company is seeking to attain through its sales compensation plan is fundamental in all these methods. For example, one company may want to stress the taking of orders; another, territorial development work; another securing new business.

Plans may also be developed to emphasize selling balanced line, or to direct attention towards those items which the company wants to push.

No plan can operate successfully if there are sales policies which are in conflict with the plan's objectives. There must be complete coordination between policies and methods relating to products, customers, distribution, pricing, sales promotion, and sales control. No plan can support the burden of methods and policies that do not lead to profitable objectives*

The foremost question in developing a commission plan is "How much will it cost?" The accountant's task is to furnish the costs of the proposed changes. His records and cost estimates will be the basis for deciding which plan is best suited to the company's policies and objectives.

The plan should be tied into the general compensation structure of the Company. Cognizance should be taken of the progress which has been made in the field of job evaluation and wage administration. Such factors as working conditions; responsibility of planning; contact and independent action; imagination and creative ability; and knowledge, are all considerations used in the job evaluation in other parts of a company and can be used in establishing the relative value of the salesman's position as compared to other positions.

Accountant's Contribution

Sales compensation, although basically a sales management tool, has important accounting aspects. However, the accountant's contribution towards a sound sales compensation plan is limited. His part is confined to measuring the predictable effect of existing and proposed plans under varying conditions. Sales compensation is only one of the elements of expense he should consider in measuring probable related income and expense, in order to predict ultimate business profit. Since the accountant's principal function in the sales field is to measure related income and expense, his preparatory work may be divided into three parts, as follows:

First, the basic elements of income and expense should be determined. These elements will vary widely among different businesses. A few common ones are income from net sales of primary products and by-products, rentals of leased property, cost of freight, convention expenses, sales salaries, and warehouse expenses. Although this list is by no means complete, it does include elements that will be of no importance to some businesses. It is the accountant's task to determine what elements are of sufficient importance to his particular business to deserve separate attention and set up distinct selling expense accounts for each one. In doing so, he should remember that it is easier to

*Marketing Handbook. Section 19, pp. 774-785.

consolidate accounts of a similar nature in a summary form than it is to go back and dig out two or more elements from a single account.

Having determined the basic elements of income, the second step is to define the basic areas for which the basic elements of income and expense are to be measured. The cost accountant departmentalizes expenses for the purpose of identifying costs within the limits of responsibilities of supervisors. This should be done in sales accounting for effective measurement of results within each district area of responsibility. Care should be taken not to allow the common error of following manufacturing department lines right through into selling activities which do not in any way coincide with them. Sales expenses should be departmentalized in parallel with the sales organization.

Net sales and selling costs should be prepared in such a way that, in addition to being departmentalized in accordance with existing lines of responsibility, they can be quickly assembled for study in other ways, i.e., product, region, sales territory, salesmen, type of outlet, class of customer, size of order, etc.

The third step in the accountant's preparatory work is to develop yardsticks for measuring performance. Any incentive applied through sales compensation is obviously unsound unless it is applied against elements of the job that can be measured or appraised. The most important parts of a sales job can usually be measured. For example, sales dollars are units of products; the degree of sales balance secured as to products and types of customers; intensity of territorial coverage; effectiveness in developing small-volume accounts; number of orders handled; and number of salesmen's calls can all be measured with considerable accuracy. These are as easily subjected to planning and analysis as are manufacturing factors.

The accountant can aid in making sales compensation plans successful by working towards a friendly, understanding, and cooperative relationship with the sales personnel. He should consider most carefully and sympathetically the selling side of the business, for without sales there can be no business. Therefore, he must direct his actions towards helping the sales department. The sales department has got to sell and sell at a profit if the business is to live.

The accountant must convince the sales manager that control is necessary in order to keep the company stable and profitable. He must set up and maintain sharp tools for measuring sales performance in considerable detail and prove to the sales manager that records are concrete, useful tools, not guess sheets and post mortems. The accountant must prove that he is no more a bookkeeper than the sales manager is a peddler. Finally, it is the accountant's duty to be eternally vigilant to see that plans of sales compensation are consistent with company objectives for its own profit and for the welfare of its salesmen.

Current Trends in Salesmen's Commissions

A further requisite of an accounting system is consideration of the current trends in salesmen's commissions. A recent survey made by the writer among eight hundred suppliers and customers of a medium sized electronics company showed that approximately fifty-eight per cent of the 27.5% companies participating in the survey employed no salesmen or representatives on a commission basis. Approximately 29% of these companies employed no salesmen or representatives at all. The others paid their salesmen a straight salary. This is an indication of the trend of sales compensation. More consideration is given to the broad relationship between buyer and seller and more emphasis placed on service and less on mere order getting. This swing away from commission compensation reflects the growing social consciousness of business and the desire of management to have close control of the salesmen's activities.

Approximately forty-five per cent of those companies having commission plans also have a salary plan for salesmen. Ten per cent combine a bonus plan with commissions. Twenty-five per cent pay their salesmen on a straight commission basis.

The net average annual earnings of salesmen spread over all types of compensation plans is $5,052.00 in 1952. This may be compared with a survey made by the Dartnell Corporation in 1946 which indicated that the net average annual earnings of salesmen was $3,642.00.

Fifty-five per cent of those companies having a salesmen's commission system of any kind use duplicate copies of invoices for an accounting record of commissions, eliminating a formal commission book. Several of these simplify their system further by using ditto copies of invoices. This is especially true of those companies employing a large number of salesmen.

The most common basis for payment of commission is shipment of the order to the customer. Seventy-five per cent of those companies paying commissions use this basis for determining commission. The other twenty-five per cent pay their salesmen commissions only after payment has been received from the customer. Although more work is involved in basing commissions upon cash receipts, it is practically a necessity in the case of small companies operating with a limited amount of working capital. They cannot afford to finance these commissions.

The rate of commission paid to salesmen varies from a flat per cent on each sale to a varying per cent on amounts over a given quota. One company covered by the survey figured the cost of each sale, including an amount added for the salesman's burden, and pays the salesman thirty-three and one-third per cent of the profit made on each sale. The rates paid extended from one per cent of the amount of the sale to thirty-eight per cent. The average rate is approximately eleven per cent.

Accounting System for Salesmen's Commissions

Since the current trend is towards basing commissions on shipments of orders, we shall first discuss a system of accounting for such commissions. The primary source for determining commission is, of course, the sales order. Each salesman is assigned a specific territory. When an order is received it is analyzed, first of all, by territory, in order to determine the salesman who is to receive commission, and then, by product to determine the proper commission rate. The salesman and commission rate thus determined are noted, by code, on the sales order which will serve as the source for preparation of the sales invoice at the time that shipment is made.

The accounting department receives two copies of the sales invoice. One copy is used as a basis for posting to the sales journal and to the customer ledger. The other copy is used as a basis of determining the salesman's commission.

At the end of the month, the commission copies of the invoice for the month are sorted according to commission rates. If there are two different rates applicable to the same invoice, i.e., two products having different rates billed on the same invoice, a memo is made of one of the items and the rate applicable thereto. The item which has been noted on the memo is then crossed off the commission invoice. The memo is put into the rate group which has been indicated on it. A tape is run on each group and the appropriate rate applied. The commission thus determined is the basis for the monthly accrual on the books of account.

The commission invoices are resorted according to salesman. A folder is maintained for each salesman. Each month the commission invoices for each salesman are put into his folder in numerical sequence. The invoices in this folder represent the total accrued commission due each salesman, for, as we shall see later, as the salesman received payment for commission on an invoice, that invoice is "pulled" from this commission file and transferred to a "closed commission invoice" file. The amount of commission due any salesman, at any time, may be determined merely by sorting the invoices in his folder by rate groups, running a tape on each group, and totaling the tapes for each group. The use of folders for each salesman eliminates the need of a subsidiary salesman's ledger and the arduous task of posting from the commission journal, or commission invoice, to such a ledger.

A Medium-sized Company

A medium sized company with limited working capital will depend upon receipt of payment from a customer before it pays commission to its salesmen. As noted previously, such a company cannot afford to

tie up its limited working capital by paying commission on shipments before the customer has paid. In a company using this basis for paying commission, the commission invoices corresponding to the invoices upon which payments are received are, each day "pulled" from the "open commission invoice" folders of the salesmen. These invoices are filed in a "commissions to be paid" folder until the end of the month. At the end of the month, the invoices in each salesman's "commissions to be paid" folder are separated by rate group and a tape run on each group for each salesman. These tapes indicate the totals for the salesmen's commission statements which are prepared directly from the invoices which have been "pulled" from the "commissions to be paid" folder of each salesman. After the commission statement has been prepared and the commission paid, the invoices upon which commission has been paid are filed in a closed commission file maintained for each salesman or representative.

Control of the accrued commission account is maintained by periodically reconciling the account with the "open commission invoice" and "commissions to be paid" folders. The totals of these folder should equal the balance of the accrued commission account in the general ledger.

A Basis of Sales Orders

There are a few companies who accrue commissions upon the basis of sales orders received, rather than sales orders shipped. This method has a potential tax advantage. In the initial year that the system is started a commission expense is created which, under ordinary methods, would be spread over several years. The expense is declared at the time the sales order is received. Shipments on the order may extend over several years. Of course, in the long run, the amount of expense declared is the same under both systems. There are, however, certain tax advantages gained by using all the expense in a period when taxes are high or when the total expense as compared to the allocated expense will materially affect the company's position in regard to the present excess profits taxes. There is the obvious advantage that the larger expense will lower the tax bracket of the company's profit.

Cuts Time, Effort, Expense

The system of accounting described above may be easily adapted to this method of accruing commissions. In addition to receiving a commission copy of the sales invoice, the accounting department receives a copy of each sales order. These sales orders are sorted according to commission rates and the monthly accrual determined by the same procedure described for accrual on sales invoices. A file of "open commission sales orders, unshipped" is maintained for each salesman in addition to the commission invoice files. When shipment is made on a sales order, it is transferred to an "open commission sales order, shipped"

file. When commission is paid, the sales order is transferred to the "closed commission sales order" file. In the case of a partial shipment against a sales order, a memo of the amount of the sales order being shipped is made from the sales order and is transferred to the "open commission sales orders, shipped" file and the balance of the sales order to be shipped is indicated on the commission sales order copy which remains in the "open commission sales orders, unshipped" file until the order is complete. Control is maintained by periodic reconciliation of the totals of the "open commission sales orders, shipped" and the "open commission sales order, unshipped" with the balance of the accrued commission account in the general ledger. The totals for the "open commission sales orders, shipped" should equal the totals of the "open commission invoice" and "commission to be paid" folders for the salesmen.

The system of accounting for salesmen's commissions which has been described is a radical departure from the usual commission journals and subsidiary salesmen's ledgers. In their place have been substituted various files so that the desired information may be obtained directly from the source usually used as the posting media for these formal records. The fundamental principle behind this system is that duplication of effort means added expense and lower profits. By elimination of the copying of sales invoices or sales orders into a commission journal and recopying of this information into subsidiary ledgers, the amount of time, effort, and expense in accounting for salesmen's commissions has been reduced to a minimum.

In developing this system consideration has been given to the accountant's relationship to the sales field and the current trend in sales compensation. Although sales compensation is a sales management tool, the accountant can contribute to a sound plan by developing yardsticks to measure the predictable effects of existing and proposed plans under varying conditions. His overall knowledge of the business will enable him to consider the relationship of all the basic elements of income and expense and how these elements would be affected by a sales compensation plan.

For Further Reading

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COMMISSION PAYMENTS FOR DOOR-TO-DOOR SELLING — Sales Management, Nov. 1st, '52.

HOW TO COMPENSATE THE 1953 SALESMAN — Modern Industry, July '53.

HOW TO DESIGN THE SALESMAN'S COMPENSATION PLAN — H. R. Tosdale, Harvard Business Review, Sept. '53.

SALES PROMOTION PROFITS AND MATHEMATICS — Paul Kellogg, Technical Advisers' Association of Montreal (address).

Improving Cost Control . . .

By DONALD E. CHAPMAN
Supervisor, Internal Audit Dept., Trico Products Corp.

In this article, the author describes the action taken by one company when it discovered that labour costs in two service departments remained constant while production of the company as a whole changed markedly. He outlines a programme of investigation, analysis and recommendations undertaken by the Systems and Procedures Department, which resulted in a new and more efficient system of control in the service departments.

THIS article could be referred to as a progress report on the steps taken by the Systems and Procedures Department of one Company to investigate, analyze and make recommendations for providing a more adequate control programme in two of the service departments.

This project was started when it was determined that labour costs incurred in Service Deparaments A and B were relatively constant at all times in spite of the fact that production output, of the company as a whole, might change markedly from time to time. This stemmed from the fact that limited information was available on work loads, performance, employee efficiency, and supervisory control in these non-productive departments. The Systems & Procedures Department was given this assignment because of the wide scope of the project and because it was felt that this department was in the best position to conduct the investigation, analyze the findings and make recommendations for improvement.

One of the first steps in the programme was to obtain a detailed bibliography of technical articles, books and literature on the subject of control in this particular area of plant operations. These technical articles were reviewed by personnel in the Systems and Procedures Department assigned to the project. This step is believed to have been of importance in stimulating interest on the part of this personnel and supplementing their previous experience on control systems.

The next step was the preparation of an itinerary of visits to industrial concerns which were successful in their cost control of service departments. The names of these companies were obtained from references in the articles and books previously studied, also from the knowledge of such companies by personnel in the organization. These companies were visited and their system of cost control observed. By observing such systems in operation and learning more about the limitations and strong points of certain phases of the system a better understanding of cost control for non-productive labour in service departments was obtained. It was found advantageous to visit other industrial concerns who were confronted with like problems because we were then in a better position to describe to management the merits of the systems which were observed to be working successfully in these companies.

Before any of the above steps were taken, the problem had to be defined, and the objectives of the project established. The primary problem was stated as: how to provide optimum service in Departments A and B at the lowest possible cost. The objectives were broken down into the following categories: (1) improvement in the organizational structure in Departments A and B including the establishment of defined responsibilities and authority, and (2) providing for adequate records of work performed in Departments A and B to facilitate the setting-up of a more effective control over equipment, materials and labour in order to obtain better cost control.

Actually this non-productive cost control programme consisted of two phases as was brought out in the objectives. The first phase involved the organization of Departments A and B and the various jobs in these departments. This was necessary in order to point out the flow of work within each of the service groups and to evaluate the function of each of the participants within the group. The second phase consisted primarily of investigation and making recommendations for the establishment of a better control system in order to obtain good cost control.

To facilitate the analysis of the organizational structure of Departments A and B, it was necessary to chart the existing organizations. This chart called attention to a number of possible inadequacies in the organization which would lend themselves to improvement. For instance, it was apparent that the Group A chief had too many people reporting directly to him. It is a well defined organization principle that no administrator is able to carry out his duties adequately when he delegates to more subordinates than he is capable of supervising. Another factor which was revealed in the organization chart was that there were no complete, clear, and definite lines of responsibility and authority in Service Departments A and B. Further analysis of the various jobs as depicted on the organization chart disclosed that there was no logical grouping of various jobs in these service departments.

As a result of the limitations revealed in the organization of Group A and B the following recommendations were made to management: (1) Assignment of a capable and qualified supervisor to Group A. By such an addition the span of control on the part of the Group A Chief could be reduced considerably thereby allowing him to devote his time to the problems of supervision and administration. (2) Reassignment of the various Job Classes in Group A and B according to function. This would facilitate the setting-up of departmental crews which could provide the best possible service in the most efficient manner. In addition, the staff function in these departments was strengthened to relieve and improve the clerical tasks previously performed by the

department foremen; also it was necessary to obtain sufficient and adequate records and reports to facilitate the setting-up of the control system.

The second phase, as stated previously, was to investigate, analyze and recommend improvements in procedure for establishing a more effective cost control system in these groups. The first step to take in this connection was to find out what present procedures were in effect. Generally, the procedure was that requests could be made to 3 different agencies, Division Head, Group Head, or Control Clerk. These requests were usually made verbally as no formal request procedure was in effect.

If the work was of a routine repair nature, usually the Group Head was contacted. On the other hand, if the work was of the major repair or project type, the Division Head or the Control Clerk were contacted, usually verbally. A Shop Order would then be issued for accounting purposes. Many times the work would already be started before this Shop Order was issued.

Priority of the job was usually determined by the amount of pressure put on by our operating Supervisors, and consequently, many jobs would be started and then stopped because of more pressure on another job. This of course raises the cost of such work because of time wasted between jobs.

The above may seem to be very much of a trial and error method of planning and it is; but it is not uncommon in industries of today with this type of operation.

The first major step to correct the conditions outlined above was to separate the planning and doing phase of the work involved.

In order to establish this, a separate group was organized whose duties it would be to receive all requests for work, process the work requests by obtaining approvals, issue Service Orders and Work Orders to the doing groups, estimating the majority of jobs and issuing control reports so that the Division Head could do a better job of planning. This Control Group would be a secondary staff function reporting to the Division Head.

All requests for work would be made out on a four-part form entitled "Request for Service Work." (In cases of emergencies, requests would be made verbally by telephone to expedite immediate action. These requests would be supplemented by the standard written request form). (Exhibit 1). Such requests are to be authorized by the production supervisor of the department in which the work is to be performed. One copy of this form will be retained in the production department as the supervisor's record of work requested. The remaining three copies are to be forwarded to the Plant Superintendent's office for approval. After approval, one copy is retained in the Plant Superin-

tendent's file and two copies forwarded to the Division Head's office for appropriate action. (Control Group is located in Division Head's office).

Exhibit 1

REQUEST FOR SERVICE WORK Date ....

Location by Floor No.	Bldg. No.	Dept. No.	Check Type of Work
(Complete Detailed Description of Work)			Millwright
			Electrical
			Carpentry
			Janitorial
			Painting
			Other (specify)
Type of equipment — E No.		Requested Date of Completion	
Requestor's Signature		Supt. Approval	

When requests are received in the Control Group office, three copies of a Service Work Order, (Exhibit 2) will be prepared. A Service Order, depending upon the type of work to be performed—(1) major equipment repair, (2) non-capital items, (3) capital items, and (4) minor machine repairs—will be obtained from the Control Clerk. This classification number will be posted to the Work Order. The request will be checked for details by the Estimator for the purpose of establishing an estimate of the time required to complete major repairs and projects. This is done by posting the estimated time required by each craft to complete their particular phase of the project on a Group A or Group B Estimating Sheet, (Exhibit 3).

Exhibit 2

SERVICE WORK ORDER

Service Order	Equip. No.	Location—Dept.	Date of Order
Work Completed	Priority No.	File No.	Permanent No. of Employee
Description of Work			
Labour Summary Major Jobs			Ordered by Date
	Estimated	Actual	Variance
Labour			Completed by Date
Cost			

Exhibit 3

GROUP A AND B ESTIMATING SHEET

S.O. No. .... Work Order No. .... Date ....

LABOR AND MATERIAL ESTIMATE

Oper.	Description	Craft	No. Men	ELP. Hrs.	Total Hrs.
Estimator		Total Hours			
Approved Operating Foreman					

MATERIAL REQUIRED

Quantity	Description of Item	Stock No.	Unit Cost	Total Cost
			TOTAL	

The total estimated hours will be posted to three copies of the Work Order. After setting estimated times for the completion of a project, a copy of the work order will be forwarded to the requestor and a copy will remain on file in the Division Head's office. The third copy of the Work Order is given to the Service Department Dispatcher. The job is then assigned to a Supervisor who adheres to the priority date posted on the Work Order. The Group A and B Estimating Sheets will be filed in the Control Group's office for reference when jobs of a similar nature are requested. Work loads will be determined by comparing total estimated hours in the Service Group with available man hours within the group. This will be done by the Dispatcher assigned to the group. Each week a summary work load for major repairs and projects by group and classification within that group will be issued. (Exhibit 4).

Exhibit 4

ESTIMATED SHOP ORDER LOAD IN *
SERVICE DEPARTMENT A

Craft	Hrs. Available Per Week	Hrs. Available for Shop Order Work Per Week	Work Load Hrs. (Shop Order Work)	Work Load In Weeks
Millwrights	1,500	1,200	4,800	4
Welders	300	240	720	3
Machinists	300	240	960	4
Painters	350	280	840	3
Carpenters	350	280	1,400	5

* Hypothetical figure for illustration purposes.

To keep control over maintenance required on individual pieces of equipment a complete file by equipment number will be maintained in the Division Head's office. All extensive and costly repairs will be posted to the cards maintained in this file. With such a record, it can be immediately determined if any specific piece of equipment is requiring excessive repairs or overhauling. Such data can be used for deciding on the purchase of additional equipment or machines; also it can give an indication that constant repairs on specific machines may mean negligence such as insufficient oiling, improper utilization of equipment, overloading of equipment, etc.

When projects are completed, the service department employee will turn in his job pay ticket with the copy of the work order given him when the job was assigned. Copy three of the work order will be filed in the service department for future reference.

After verification, the pay ticket is forwarded to the Timekeeping Department for payroll and cost distribution report preparation. A Daily Report, (Exhibit 5) is prepared by the Timekeeper from the information taken from the pay ticket. This report is forwarded to the Cost Control Department where control reports are prepared and distributed to specific offices.

Exhibit 5

DAILY REPORT

Dept. No. .... Date ....

Acct. No.	Equip. No.	Description of Work	Perm. No. of Employee Who Performed Work	Hrs. Charged
		Form F		

Upon receipt of the Daily Report for Timekeeping, the Cost Control Department, in turn, prepares a daily Service Expense Control Report, (Exhibit 6). This report is issued to the Production Department in which specific service type work was performed. The daily Service Expense Control Reports are accumulated for posting to a Service Expense Control Weekly Report, (Exhibit 7), which is forwarded to the Plant Superintendent.

Because routine service work is not estimated, it has been necessary to set-up an additional control for such operations. This control is applied by comparing allowed hours with actual hours expended in the Service Departments. The following formula has been devised to arrive at these allowed hours:

1. $$\frac{\text{Accumulated Total Production Hours}}{\text{Accumulated Total Service Dept. Hours}} = \text{Average Productive Hr. Expended to Each Service Dept. Hrs.}$$

2. $$\frac{\text{Average Productive Hrs. Expended to Each Service Dept. Hour}}{\text{Previous Weeks' Productive Hrs.}} = \text{This Week's Allowed Service Dept. Hrs.}$$

3. $$\frac{\text{This Week's Allowed Service Dept. Hrs.}}{\text{No Working Days In Week}} = \text{Allowed Service Dept. Hrs. Per Day}$$

An internal report is maintained in the Cost Control Department on which the computations are made to arrive at the allowed Service Department hours per day for control purposes. It may be mentioned that the previous week's productive hours are obtained from the Tabulating Department where the payroll distribution reports for cost accounting purposes are prepared.

Exhibit 6

SERVICE EXPENSE CONTROL REPORT

To: .... Dept. No. .... Date ....

The following routine service type work was performed in your department on .... Your allowed hours for such work based on production hours are also listed. Please compare the actual hours taken with the allowed hours, as this is your measurement of how your department is operating with regard to routine service cost.

Acct. No.	Equip. No.	Description of Work	Perm. No. of Emp. Who Performed Work	Hours Charged

Total Hours Allowed This Week ....
Total Hours Used to Date ....
Allowed Hours Available Bal. of Week (.......... days) ....
Hours Used Over Allowed Hours to Date This Week ....

Exhibit 7

To: Plant Superintendent

Re: Service Expense Control

The following is a summary by department, comparing allowed routine service hours against actual hours used for W.E. .... Also given are labour hours unused or saved and hours exceeded, if any:

	Total Weekly Allowed Hours	Total Hours Used	Total Hours Saved	Hours Exceeding Allowed Hours
Dept. No.				
Dept. No.				
Dept. No.				
Dept. No.				
Dept. No.				
Dept. No.				
Dept. No.				
Dept. No.				
Dept. No.				
TOTALS				

It is felt that this Cost Control Programme will become more effective with regards to service operations as a result of the information available through the adoption of this procedure. The reason for this is that we now have a more clearly defined organization and a good system of cost control for service labour.

Student Section . . .

QUESTION I (18 marks)

The James Company manufactures one kind of household equipment. The Company's financial statement may be summarized for the six months ended 31st December, 1949, as follows:

Sales		$2,500,000.00
Cost of Goods sold —		
Raw Materials 1st July, 1949	$ 437,500.00	
Purchases	1,000,000.00	
	$1,437,500.00	
Raw Materials 31st December, 1949	687,500.00	
	$ 750,000.00	
Direct Labour	500,000.00	
Factory Expenses	250,000.00	
Cost of Goods Manufactured	$1,500,000.00	
ADD: Inventory of Finished Goods 1st July, 1949	625,000.00	
	$2,125,000.00	
LESS: Inventory of Finished Goods 31st December, 1949	750,000.00	$1,375,000.00
Gross Profit for the six months		$1,125,000.00

For this period sales totalled 25,000 units, and Inventories of finished goods, while changing in their costs, remain unchanged at 12,500 units at 1st July and 31st December.

The Sales Department of the Company has prepared a Sales budget for the 6 months to 30 June, 1950, showing estimated sales of $2,587,500.00 after allowing for an expected decrease in selling price of 10%.

It is estimated that the raw material Inventory at 30th June, 1950, will amount to $500,000.00. Estimated Production for the six months period is 30,000 units.

Projected unit costs for the six months ended 30th June, 1950, were:

Raw Materials	$27.50 per unit
Direct Labour	17.50 per unit
Factory Expenses	8.50 per unit

REQUIRED:

1. A comparative statement of budgeted sales and costs for the six months ended 30th June, 1950, and actual sales and costs for the six months ended 31st December, 1949.
2. A statement of analysis of the difference in gross profit.

COMMENTS:

Students, while not presenting this statement in particularly good form, in many cases were able to compile the data for the statement without much difficulty. The examiner noted that marks were lost on a number of papers because the student did not prepare an analysis of the reasons for reduction in gross profit. Average mark was 10.6 out of a possible 18 marks.

1953 ADVANCED COST ACCOUNTING — PAPER I

QUESTION I (20 marks)

The Supreme Manufacturing Company operates an Estimate Cost system with two departments. Work-in-Process accounts are maintained by elements of cost and also by Departments. The estimate cost is as follows for one unit:

	Dept. 1	Dept. 2
Materials	$ 3.50	
Supplies	0.50	
Labour—5 hours x 0.80	4.00	
5 hours x 0.90		$ 4.50
Manufacturing expenses:		
5 hours x 1.00	5.00	
5 hours x 1.00		5.00
	$13.00	$ 9.50

The Work-in-Process Inventory at the beginning of the period was:

			Dept. 1	Dept. 2
Work-in-Process Materials	(150 units)		$ 600.00	
Work-in-Process Labour	(150 units)		300.00	
Work-in-Process Labour	(120 units)			$ 270.00
Work-in-Process Expenses	(150 units)		375.00	
Work-in-Process Expenses	(120 units)			300.00
Cost from Preceding Dept.	(120 units)			1,560.00
			$1,275.00	$2,130.00

The preceding figures of the Work-in-Process Inventory have been adjusted to the basis of the new estimates.

Units completed during the period—Dept. 1 — 150 plus 4,650, a total of 4,800 transferred to next department.
Dept. 2 — 120 plus 4,200, a total of 4,320, of which 4,000 are sold at $30.00 per unit.

Units in Process at the end of the period:
Dept. 1—1,200 complete for material; ½ complete for labour and manufacturing Exp.
Dept. 2— 600 complete for material; ¼ complete for labour and manufacutring Exp.

Inventory of Materials and Supplies, at beginning of period	$ 6,000.00
Purchases of Materials and Supplies, during period	23,862.00
Direct labour for period—Dept. 1	24,228.00
Dept. 2	22,000.00
Manufacturing Expenses for period:	
Dept. 1	28,000.00
Dept. 2	24,000.00

At the end of the period the Inventory of Materials and Supplies was $5,100.00.

REQUIRED:

Journal entries to record the above transactions. Differences between actual and estimated costs are to be transferred to an adjustment account, and are then to be allocated to inventories and cost of goods sold.

SOLUTION TO QUESTION I:

1. Materials and Supplies			$23,862.00	
Accounts Payable				$23,862.00
2. Direct Labour			46,228.00	
Accounts Payable				46,228.00
3. Manufacturing Expenses			52,000.00	
Accounts Payable				52,000.00
4. Work-in-Process Materials, Dept. 1			24,762.00	
Materials and Supplies				24,762.00
Inventory at Beginning	$ 6,000.00			
Purchases	23,862.00			
	$29,862.00			
Inventory at Close	5,100.00			
	$24,762.00			
5. Work-in-Process Labour		Dept. 1	24,228.00	
		Dept. 2	22,000.00	
Direct Labour				46,228.00
6. Work-in-Process Mfg. Exp.		Dept. 1	28,000.00	
		Dept. 2	24,000.00	
Manufacturing Expenses				52,000.00
7. Work-in Process Transfer Account		Dept. 2	62,400.00	
Work-in-Process Material		Dept. 1		19,200.00
Work-in-Process Labour		Dept. 1		19,200.00
Work-in-Process Mfg. Exp.		Dept. 1		24,000.00

4,800 x $4.00=$19,200.00
4,800 x $4.00=$19,200.00
4,800 x $5.00=$24,000.00

8. Finished Goods		97,200.00	
Work-in-Process Transfer			56,160.00
Work-in-Process Labour	Dept. 2		19,440.00
Work-in-Process Mfg. Exp.	Dept. 2		21,600.00
4,320 x $13.00=$56,160.00			
4,320 x $ 4.50=$19,440.00			
4,320 x $ 5.00=$21,600.00			
9. Cost of Sales		90,000.00	
Finished Goods			90,000.00
4,000 x $22.50			
Accounts Receivable		120,000.00	
Sales			120,000.00
10. Adjustment Account		9,770.00	
Work-in-Process Material	Dept. 1		1,362.00
Work-in-Process Labour	Dept. 1		2,928.00
Work-in-Process Exp.	Dept. 1		1,375.00
Work-in-Process Labour	Dept. 2		2,155.00
Work-in-Process Exp.	Dept. 2		1,950.00

Book Value		Estimated	Variances
Work-in-Process 1 mat.	6,162 Dr.	4,800	1,362 too low
Work-in-Process 1 lab.	5,328 Dr.	2,400	2,928 too low
Work-in-Process 1 exp.	4,375 Dr.	3,000	1,375 too low
Work-in-Process Transf.	7,800 Dr.	7,800	
Work-in-Process 2 lab.	2,830 Dr.	675	2,155 too low
Work-in-Process 2 exp.	2,700 Dr.	750	1,950 too low

		Debit	Credit
Inventory of Work-in-Process		10,200	
W-I-P Material	Dept. 1		4,800
W-I-P Labour	Dept. 1		2,400
W-I-P Mfg. Exp.	Dept. 1		3,000
Inventory of Work-in-Process		9,225	
W-I-P Transfer Account			7,800
W-I-P Labour	Dept. 2		675
W-I-P Mfg. Exp.	Dept. 2		750
To Transfer Closing Inventories			

Inventory of Work-in-Process			
Material	Dept. 1	$ 272.40	
Labour	Dept. 1	325.33	
Expense	Dept. 1	152.77	
Work-in-Process Transfer Account		4,914.50	
Adjustment Account			$ 5,665.00

Calculation as follows:

material $\frac{4,800}{24,000}$ x $1,362.00=$ 272.40

labour $\frac{2,400}{21,600}$ x 2,928.00= 325.33

expense $\frac{3,000}{27,000}$ x 1,375.00= 152.77

Balance to next Dept.

		Debit	Credit
Cost of Sales		$ 7,506.60	
Inventory of Work-in-Process			
Material	Dept. 2	574.80	
Labour	Dept. 2	72.30	
Expense	Dept. 2	65.40	
Finished Goods		600.40	
Work-in-Process Transfer Account			$ 4,714.50
Adjustment Account			4,105.00

Calculation as follows:

material	$\frac{600}{4920}$ x $4,714.50=	$	574.80
labour	$\frac{150}{4470}$ x $2,155.00=		72.30
expense	$\frac{150}{4470}$ x $1,950.00=		65.40

Finished Goods

material	$\frac{320}{4920}$ x $4,714.50=	$	306.50
labour	$\frac{320}{4470}$ x $2,155.00=		154.30
expense	$\frac{320}{4470}$ x $1,950.00=		139.60
		$	600.40

COMMENTS:

The problem was not difficult, but the arithmetic involved in allocating the adjustment account discouraged many students.

QUESTION III (25 marks)

The St. Catherine Company Limited manufactures a single product. Its accounting department uses a system of standard costs, with work in process accounts for each of three departments. A summary of its operations in the month of March 1950 is as follows:

Material Purchases
- 2,500 units of item 1 — at $1.52 per unit
- 3,000 units of item 2 — at 1.01 per unit
- 5,000 units of item 3 — at .85 per unit

Material Requisitioned to Production
- 2,400 units of item 1 — at $1.52 per unit
- 2,200 units of item 2 — at 1.01 per unit
- 4,200 units of item 3 — at .85 per unit

Direct Labour
- Dept. A 4,400 hours at $ .73
- Dept. B 11,000 hours at .62
- Dept. C 2,000 hours at .75

Factory Overhead to be distributed to departments on the basis of direct labour hours; actual expenses amount to $8,800.00.

Production for the month amounts to 1,000 completed units. There was no work in process at the beginning of the month, but at the end of the month there was on hand, 200 units, complete for department A, complete for material in Department B and 50% complete for labour and overhead.

A total of 900 units were sold at $35.00 each.

For the month of March the standard overhead was determined from the following budgeted date.

	Standard Overhead Expense Budgeted	Standard Direct Labour Hours
Dept. A	$2,000.00	4,000
Dept. B	5,000.00	10,000
Dept. C	1,000.00	2,000

The Standard Cost Card of the Company was for each unit produced:

Material		
Item 1 in Dept. A — 2 pieces at $1.50	$ 3.00	
Item 2 in Dept. B — 2 pieces at 1.00	2.00	
Item 3 in Dept. C — 4 pieces at .90	3.60	
		$ 8.60
Labour		
Dept. A — 4 hours at $ .75	$ 3.00	
Dept. B — 10 hours at .60	6.00	
Dept. C — 2 hours at .80	1.60	
		$10.60
16 hours at $.50		8.00
		$27.20

STUDENT SECTION

REQUIRED:

Journal entries with complete narratives to record the transactions for the month. Variance accounts should not be allocated, but it is to be assumed that these will be adjusted in subsequent periods.

SOLUTION TO QUESTION III:

Journal Entries	Debit	Credit
1. Material Stores	$11,080.00	
Accounts Payable		$11,080.00

Item	Quantity	Price	Amount
1	2,500	$1.52	$ 3,800.00
2	3,000	1.01	3,030.00
3	5,000	.85	4,250.00
			$11,080.00

To record purchases for the month of March

	Debit	Credit
2. Work in Process—Department A	$ 3,600.00	
Department B	2,400.00	
Department C	3,600.00	
Material Price Variance		$ 130.00
Material Quantity Variance		30.00
Material Stores		9,440.00

Item	Standard	Price Variance	Quantity Variance	Total
1	$3,600.00	$ 48.00	——	$3,648.00
2	2,400.00	22.00	$ 200.00	2,222.00
3	3,600.00	200.00	170.00	3,570.00
	$9,600.00	$ 130.00	$ 30.00	$9,440.00

To distribute stores requisitioned to Production

	Debit	Credit
3. Work in Process—Department A	$ 3,600.00	
Department B	6,600.00	
Department C	1,600.00	
Labour Quantity Efficiency Variance		$ 300.00
Labour Rate Variance	32.00	
Accrued Payroll		$11,532.00

Dept.	Standard	Efficiency Variance	Rate Variance	Payroll
A	$ 3,600.00	$300.00	$ 88.00	$ 3,212.00
B	6,600.00	——	220.00	6,820.00
C	1,600.00	——	100.00	1,500.00
	$11,800.00	$300.00	$ 32.00	$11,532.00

To distribute direct labour for the month

	Debit	Credit
4. Work in Process—Department A	$ 2,400.00	
Department B	5,500.00	
Department C	1,000.00	
Applied Manufacturing Expenses		$ 8,900.00

Application of overhead based on standard for production, calculated on direct labour hours.

	Debit	Credit
5. Manufacturing Expenses	$ 8,800.00	

However, in general the above solution supplies the outline for the required entries.

	Debit	Credit
Accounts Payable, etc.		$ 8,800.00

To record actual expenses

	Debit	Credit
6. Applied Manufacturing Expenses	$ 8,900.00	
Manufacturing Expenses		$ 8,900.00

To transfer expenses applied to production to actual expenses.

	Debit	Credit
7. Manufacturing Expenses Account	$ 700.00	
Manufacturing Expenses — Capacity Variance		$ 700.00
Budgeted Direct Labour Hours—16,000		
Actual Direct Labour Hours —17,400		
1,400 at 50c=$700.00		
8. Manufacturing Expense Account	$ 200.00	
Manufacturing Expenses — Efficiency Variance		$ 200.00
Standard Labour Hours for Production ... 17,800		
Actual Labour Hours for Production ... 17,400		
400 at 50c=$200.00		
9. Manufacturing Expense—Expenditure Variance	$ 800.00	
Manufacturing Expense		$ 800.00
Budgeted Expenses—$8,000.00		
Actual Expenses — 8,800.00		
Excess —$ 800.00		
10. Work in Process — Department B	$ 9,600.00	
Work in Process — Department A		$ 9,600.00
Transfer of 1,200 completed units at $8.00 each		
11. Work in Process — Department C	$21,000.00	
Work in Process — Department B		$21,000.00
Transfer of 1,000 completed units at $21.00 each		
12. Finished Goods	$27,200.00	
Work in Process — Department C		$27,200.00
Transfer of 1,000 completed units at $27.20.		
13. Cost of Goods Sold	$24,480.00	
Finished Goods		$24,480.00
Transfer of 900 units at $27.20 each.		
Acounts Receivable	$31,500.00	
Sales		$31,500.00
Sale of 900 units at $35.00 each.		

COMMENTS:

Questions on accounting for standard costs appear to be well understood — the average mark was 18.6 out of a possible 25 marks, for all papers examined. There are several possible and quite acceptable variations from the above solution — such as charging work in process accounts at actual cost and crediting them at standard.

CORRECTION

In the May issue of Cost and Management, an error appeared in the Students' Section (page 200) in the solution to question VI of the Accounting II paper. In the 14th line, under Common Stock Issued, the question should read "70,006 shares at 1st April, 1952", not "70,000 shares . . ." as it read in the magazine.

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